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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/893,700

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Yu-Lin Hwang

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12/27/2004

BACON & THOMAS, PLLC  
625 SLATERS LANE  
FOURTH FLOOR  
ALEXANDRIA, VA 22314

EXAMINER

CHANG, RICHARD

ART UNIT

PAPER NUMBER

2663

DATE MAILED: 12/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/893,700	Applicant(s) HWANG, YU-LIN	
	Examiner Richard Chang	Art Unit 2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2001.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 3 recites the limitation " The method of claim 1, ... commanding said switching chip to perform..." in lines 4-5, page 10. There is insufficient antecedent basis for this limitation in claim 1. This is most likely a mistyped error wherein "The method of claim 2..." was mistyped as "The method of claim 1..." as the subject matter "switching chip" appears only in the claim 2.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of US patent 6,829,250 ("Voit et al.") and US patent 5,892,912 ("Suzuki et al.").

Regarding Claim 1, The admitted prior art teaches a method for servicing subscriber ends on an asymmetrical digital subscriber line (ADSL) transmission unit at the customer premises end (ATU-R) of said ADSL (See Fig. 1) comprising:

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coupling equipment of each subscriber end (20) to a plurality of subscriber input/output (I/O) ports in said ATU-R (42) (See Fig. 1, page 6, line 7-9).

The admitted prior art lacks or does not disclose expressly the particular application involving limitation of

“utilizing said VLAN to generate a plurality of virtual connections in an ADSL connection”,

“adding a switching hub in said ATU-R for identifying tagged data in said virtual connections”,

“connecting each subscriber end in said virtual connections to said switching hub via Ethernet”, and

“assigning each subscriber I/O port in said switching hub to one of said virtual connections having a distinct tag”.

Suzuki et al. teach a method for managing VLANs over a virtual network (ATM or ADSL) (See Fig. 1, Col 4, lines 43-46) comprising of

adding a switching hub (11, 12 and 13) in virtual network node (said ATU-R) for identifying VLAN identifiers (tagged data) in said virtual connections” (See Fig. 1, Col. 4, lines 57-60),

connecting respective nodes (a to e, as subscriber end) in a virtual connections of MAC layer level to the switching hub (11) between its IEEE 802.3 (via Ethernet) ports (1 to 5) (See Fig. 1, Col. 4, lines 47-50), and

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assigning individual ports (1 to 5) (each subscriber I/O port) in the switching hubs (11, 12 and 13) a VLAN function with individual VLAN identifiers (distinct tag) (See Fig. 1, Col. 5, lines 10-14).

A person of ordinary skill in the art would have been motivated to employ Suzuki et al. in the admitted prior art in order to obtain a method for servicing subscriber ends to take advantage of adding a switching hub in network node (ATU-R) with the respective ports connected via Ethernet to service VLAN functions to the subscriber end in claim 1.

The suggestion/motivation to do so would have been to add a switching hub (11, 12 and 13) in network node (ATU-R) with the respective ports (1 to 5) connected via Ethernet to service VLAN functions to the subscriber end by Suzuki et al. in Col 4, lines 43-65. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Suzuki et al. with the admitted prior art to obtain the inventions specified in claim 1.

The Suzuki et al. and admitted prior art teach substantially all the claimed invention but did not disclose expressly the particular application involving limitation of

“utilizing said VLAN to generate a plurality of virtual connections in an ADSL connection”,

Voit et al. teach a method for implementing data communication services in a virtual local access network utilizing digital subscriber line technology (See Fig. 1, Col 14, lines 13-22) comprising of

utilizing VLAN to generate a plurality of virtual connections for ATU-R (904) in an ADSL connection (908) (See Fig. 9, Col. 33, line 6-11).

A person of ordinary skill in the art would have been motivated to employ Voit et al. in Suzuki et al. and the admitted prior art in order to obtain a method for servicing subscriber ends by utilizing VLAN to generate a plurality of virtual connections for ATU-R in an ADSL connection in order to take advantage of utilizing VLAN to generate a plurality of virtual connections for ATU-R in an ADSL connection in claim 1.

The suggestion/motivation to do so would have been to utilize VLAN to generate a plurality of virtual connections for ATU-R (904) in an ADSL connection (908) as suggested by Voit et al. in Col. 33, line 6-11. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Voit et al. with Suzuki et al and the admitted prior art to obtain the inventions specified in claim 1.

***Allowable Subject Matter***

5. Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and if no art rejection can be applied.

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**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Chang whose telephone number is (571) 272-3129. The examiner can normally be reached on Monday - Friday from 8 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*RKC*  
rkc

Richard Chang  
Patent Examiner  
Art Unit 2663

*Chau T. Nguyen*  
CHAU NGUYEN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600